1919 Construction Work on Lincoln Highway an Index of General Interest in Road Construction

A Summary of the Annual Review of the Work of the Last Year on One of the Most Prominent Transcontinental Roads

The American City February 1920

DURING 1917 highway construction in every part of the country was curtailed, and in 1918 it came almost to a stop. The result was that road conditions became very bad even on the most important main highways in many sections of the country, while highway funds continued to pile up in the treasuries of the various counties and states and were available for the undertaking of great construction projects early in 1919. As a result of all these conditions, 1919 will doubtless be considered the real start of the era of American highway building. The year's development along the Lincoln Highway is an excellent barometer of the general highway situation in this country, and the plans for 1920 indicate even greater accomplishments.

Vast Sums Invested in Lincoln Highway Last Year

A careful compilation of the expenditures made by the various states and counties thru which the Lincoln Highway passes has just been made. This transcontinental highway was at first largely a series of connecting country roads, but has gradually, thru the activities of various states, become an integral part of many state highway systems. In the majority of states Federal Aid has largely augmented the state and county funds, the route having been established as a Federal Aid road to be improved directly under the inspection of the Government for the more than three-quarters of its total distance between New York and San Francisco.

The following table shows the expenditure by states for new construction, reconstruction and maintenance on the road during 1919:

New Jersey	$1,383,572.00
Pennsylvania	1,418,169.28
Ohio	1,903,708.10
Indiana	742,218.30
Illinois	1,430,120.28
Iowa	256,899.29
Nebraska	613,025.00
Wyoming	127,009.94
Utah	225,528.54
Nevada	411,049.58
California	375,500.00
Total	$8,886,800.31

A BAD STRETCH OF ROAD ON THE LINCOLN HIGHWAY NEAR GOTHENBURG, NEBR., SHOWING ONE OF THE U. S. ARMY MOTOR TRANSPORT TRUCKS MIRED IN THE GUMBO

To this sum must be added the cost of much of the county construction and maintenance work and city paving, for which it is impossible to get accurate details and figures. Conservative estimates resulting from actual inspection of such work in progress indicate that these unreported expenditures amounted to over $500,000 in 1919; and there is an additional sum of $2,322,112,59, which is the amount provided for contracts already let. This gives a sum total of $11,709,912.90 as the money expended for Lincoln Highway improvements in the last year.

The real significance of these figures is well shown in the following table, which gives the yearly expenditures on the Lincoln Highway from 1914 thru 1919:

1914	$1,200,000.00
1915	2,580,280.00
1916	4,198,165.00
1917	2,500,918.96
1918	2,996,307.77
1919	9,386,800.31
Total	$22,862,472.04

Permanent Improvement Accomplished

While construction costs are interesting as reflecting the increasing demand for proper permanent improvement and a correspondingly increased willingness to provide the necessary money for the work, the traveler and others interested in highway state transportation more truly appreciates the constructive results accomplished thru these expenditures. In addition to the considerable cost of properly maintaining this heavily traveled highway, 377.33 miles of new permanent work were completed during 1919, as follows:

Concrete	121.14
Brick	21.28
Bituminous macadam	17.61
Macadam	28.75
Gravel	69.25
Shale	2.00
Permanent earth grade	117.30
Total	377.33

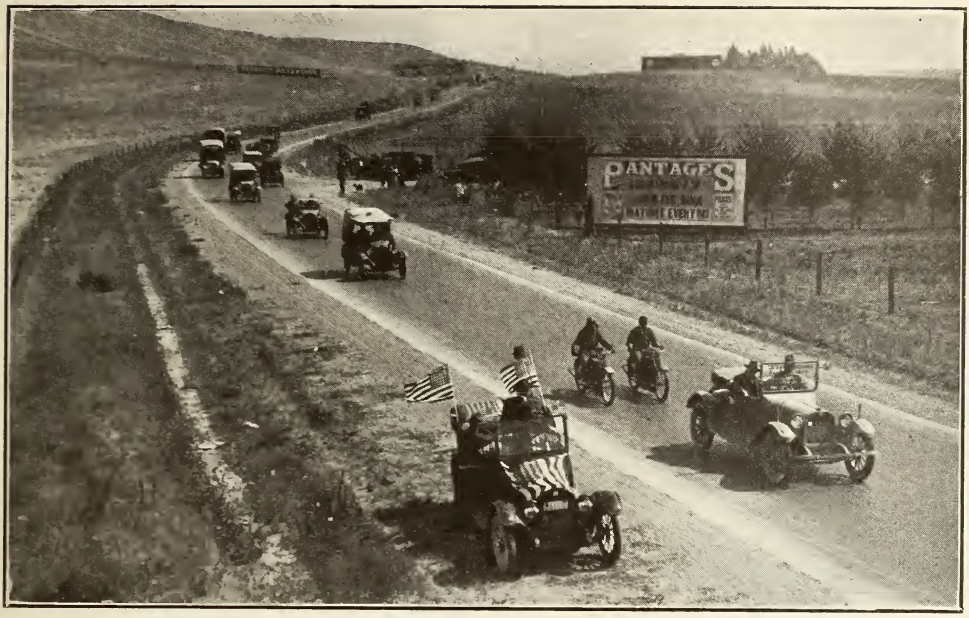
The major portion of the concrete and brick improvements made on the Lincoln Highway during the last year was in the eastern states and in California, where the tremendous traffic carried by the route and the vast sums available for highway construction combined to make this type of work necessary and possible. The 19 miles of new Lincoln Highway completed in New Jersey were all of the highest type of concrete construction. The section between Philadelphia and New York carries not only the heaviest travel of any section of the transcontinental road, but also what is said to be the heaviest traffic on any road in America. As an instance of the density of this traffic, a careful test made on the bridge over the Passaic River west of Jersey City last spring by county officials shows that 11,000 vehicles passed in 15 hours.

A high-grade macadam road thru the Alleghanies was much impaired by the tremendous volume of motor truck traffic it carried during the war, when it was used as a government supply route. The excessive cost of yearly maintenance caused the Pennsylvania State Highway Department to undertake to gradually construct the entire road of concrete, and over 19 miles were completed in 1919.

Ohio took a long step toward the permanent improvement of the Lincoln Highway in 1919 by completing 56½ miles of new concrete, brick and bituminous macadam roads. Indiana completed 21 miles of new concrete and Illinois 35 miles. The few remaining gaps needing improvement in these states will be taken care of in 1920, with the result that the end of the year will see a completed, permanent, all-weather road from New York to the Mississippi.

Progress in the West

Progress west of the Mississippi has been possibly even more noticeable than that in the East, for the reason that during the last year fundamental difficulties have been removed in several states, and a safe route in line for rapid betterment has been opened from the Mississippi to San Francisco. With the exception of California, Iowa is one state west of the Mississippi thru which the Lincoln Highway passes which is fully capable of financing the proper and permanent completion of its section of the road. Inadequate legislation was the main barrier to proper highway improvement in Iowa, but this was superseded by a new law during the past year which enables the prompt, permanent construction of all the important main-line roads, including the Lincoln Highway. Iowa is a rolling country, consequently expensive preliminary grading was necessary to precede all paving on main roads, and the majority of Iowa's expenditures have been for this form of work and the construction of lasting concrete bridges,



A CONCRETE ROAD NEAR OAKLAND, CALIF., ON THE LINCOLN HIGHWAY

particularly on the Lincoln Highway. Over 22 miles of new permanent grade was established on this road in Iowa, and more than 12 miles of it was graveled for the temporary accommodation of travel.

The problem in Nebraska, Wyoming, Utah and Nevada is largely similar to that in Iowa, and is the problem which, to a greater or lesser degree, confronts the majority of states between the Missouri River and the Sierra Mountains.

Accomplishment of Association Aim in Sight

While the primary purpose of the Lincoln Highway Association was to promote the establishment and construction of the Lincoln Highway, one of its great underlying principles was to stimulate the progress of highway improvement in every section of the country, and gradually bring about the establishment of an adequate national system of connecting roads. It was felt by the founders of the Lincoln Highway Association that this end would be accomplished both by stimulating the establishment of other main-line routes modeled after the Lincoln Highway, and by a gradually increasing perception on the part of the general public that an adequate national highway system could only be the result of proper centralized administration of the whole problem by the Federal Government. That the early accomplishment of all its fundamental aims is within view is now felt by the majority of those men who have been backing the Lincoln Highway Association since its inception. The following table gives a brief picture of the progress of improvement on this route during the last six years, and also incidentally shows that it has been materially shortened thru efficiency of construction.

End of 1913—mileage 3,389 mi.	Improved—1,598 mi.
End of 1918—mileage 3,323 mi.	Improved—2,161 mi.
End of 1919—mileage 3,323 mi.	Improved—2,538 mi.

The following table shows the complete classification of the types of road construction on the Lincoln Highway between New York and San Francisco, as of January 1, 1920:

	Miles
Concrete	294.84
Brick	212.58
Bitulithic macadam	425.61
Macadam	286.65
Asphalt	78.00
Creosote block	5.90
Granite block	7.10
Graded gravel	770.75
Natural gravel	200.00
Shale	17.00
Graded dirt	817.57
Natural dirt	93.70
Sand	13.30
Total	3,223.00
Improved mileage	2,538
Unimproved natural road	685

Assessed Valuation, Per Cent of True Value, Tax Levies, and Tax Rates of Wisconsin Towns, 1919

By the Municipal Reference Bureau
University Extension Division, University of Wisconsin

THESE figures were compiled by the Bureau from official records on file at the Wisconsin Tax Commission, and are submitted for the purpose of comparison in connection with the preparation of city budgets.

The figures for the assessed valuation, for the total, general, and school tax levies, and for the special assessments, are taken from the reports of the county clerks to the Tax Commission, as corrected by the Commission from the reports of the local assessors. The figures for the income tax are taken from the county treasurers' income tax settlement receipts filed with the Tax Commission. Those showing the ratio of assessed to true value are taken from the reports of the county assessors of income and are for all property, real and personal. The tax rates were computed by the Bureau by dividing the total tax levy by the assessed valuation. They are given in mills and include the rate for state and county taxes.

The assessed valuation is that of May, 1918, and is the valuation used as the basis for the levy of taxes collected in January, 1919.

Under the heading "Total General Taxes" are included the state, county, and city taxes, including the school taxes, but not the income taxes, special assessments, or delinquent taxes. The school and income taxes and the total special assessments are shown in the columns under those headings, respectively. In the column headed "General City Taxes" are shown the taxes levied for the general city government and its various departments, exclusive of the schools.

The amounts shown in the column headed "Income Taxes" are the total income taxes levied, not the amount of revenue derived by the city from income taxes. They include the offsets from personal property taxes and the amounts due the state and the county. The amount of revenue actually received by the city in each case would be very much less. Under the law as amended by the Legislature of 1917, after deducting the personal property tax offsets, 10 per cent goes to the state, 20 per cent to the county, and the remaining 70 per cent to the city.

There being no state census, the population figures shown are those of the federal census of 1910, the latest accurate figures.

Comparison with other cities is always valuable in municipal budget making. The figures shown in this report will enable the members of finance committees to make reliable comparisons of the actual levies for various purposes made in the different cities. In a comparison of tax rates, however, care should be used. The tax rates here shown include state and county rates and are based on the assessed valuations. For accurate comparisons these rates should be reduced to the "true" rates based on the true valuation. These can easily be found from the data given. By dividing the assessed valuation by the ratio of assessment or per cent of true value the true valuation may be found. By dividing the total general tax levy by the true valuation thus found, the true tax rate may be ascertained and the tax rates of the various cities compared on the basis of the true valuation. Except in the cases of cities where there is a great difference in the rates at which property is assessed, a comparison of the actual tax rates here given will be reliable enough for all practical purposes.

Were accurate population figures available, comparison on a per capita basis would be interesting and instructive, but the growth in population has been so divergent in the various cities of the state, particularly during the last two or three years, that it has been thought unsafe to reduce the figures to a per capita basis.